

Application No.: 10/789,171

Docket No.: JCLA10543

AMENDMENTS

In The Claims:

Claims 1-4. (Cancelled)

Claim 5. (Currently amended) A flip-chip packaging process, comprising at least the steps of:

providing a chip and a substrate, wherein the chip has an active surface with bonding pads disposed thereon, and the substrate has a carrying surface with bump pads disposed thereon, wherein locations of the bump pads correspond to locations of the bonding pads;

disposing a plurality of supporters at a periphery of the active surface, and forming an uncured electrically conductive adhesive bump on each bump pad;

situating the chip over the carrying surface ~~to contact~~of the substrate to connect the active surface and the carrying surface via the supporters with a distance between the active surface and the carrying surface;

pressing the chip toward the substrate to decrease the distance between the active surface and the carrying surface, so as to cause elastic strain in the supporters and increase a contact area between each pair of electrically conductive adhesive bump and bonding pad;

stopping pressing the chip, so that the electrically conductive adhesive bumps, each connecting a bonding pad and a corresponding bump pad, have a smaller diameter at a central portion thereof than at end portions thereof; and

curing the electrically conductive adhesive bumps.

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Claim 6. (original) The flip-chip packaging process of claim 5, wherein disposing the supporters comprises disposing a plurality of gold bumps.

Claim 7. (Cancelled)

Claim 8. (original) The flip-chip packaging process of claim 5, wherein each electrically conductive adhesive bump comprises a polymeric material doped with a plurality of electrically conductive particles.

Claim 9. (original) The flip-chip packaging process of claim 8, wherein the electrically conductive particles comprise silver (Ag).

Claim 10. (original) The flip-chip packaging process of claim 5, wherein the electrically conductive adhesive bumps are formed on the bump pads with a screen printing method.